

From: [Liu, Linda](#)
To: [Miller, Robert](#)
Cc: [Schulze, Chad](#); dmitchell@oda.state.or.us
Subject: Fw: Aminocyclopyralid Investigation Cases (AUF, NUF)
Date: Thursday, July 12, 2018 12:52:33 PM
Attachments: [140163 Case Detail.pdf](#)
[150404 Case Detail.pdf](#)

Hi Bob - As requested, please find two inspection reports from Oregon Department of Agriculture (ODA) related to the tree kill/damage investigations in Central Oregon. On July 3, 2018, Dale Mitchell of ODA also forwarded to me via email all ODA inspection reports involving aminocyclopyralid, but I'm not attaching all of them because those other reports involved investigations that (1) were not related to tree kills (water or human health concerns); (2) involved multiple herbicides; or (3) were in non-forestry settings (vineyard or pasture).

Please do not hesitate to contact ODA directly if you have any questions about these reports.
Linda

From: Dale Mitchell <dmitchell@oda.state.or.us>
Sent: Tuesday, July 3, 2018 8:09 AM
To: Schulze, Chad; Liu, Linda
Subject: Fwd: Aminocyclopyralid Investigation Cases (AUF, NUF)

Additional background Information of Oregon cases involving active aminocyclopyralid.

From: Andrea Sonnen <asonnen@oda.state.or.us>
Subject: Aminocyclopyralid Investigation Cases (AUF, NUF)
Date: July 2, 2018 at 8:49:33 AM PDT
To: Dale Mitchell <dmitchell@oda.state.or.us>, Rose Kachadoorian <rkachadoorian@oda.state.or.us>, Michael Odenthal <modonthal@oda.state.or.us>

Good morning,

Please find attached the case details for all of the AUFs and NUFs that we have in our database involving aminocyclopyralid. Most are Dupont Perspective, however there are a couple cases that it is a different manufacture product.

Thank you,
Andrea

Andrea Sonnen
Enforcement/Case Reviewer

OREGON DEPARTMENT OF AGRICULTURE
PESTICIDES PROGRAM
635 Capitol St NE Ste 100
Salem, OR 97301
TEL: (503) 986-5154
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Oregon

John Kitzhaber, Governor

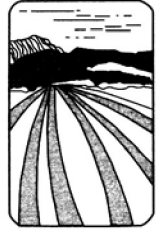
Department of Agriculture

635 Capitol Street NE
Salem, OR 97301-2532

Case Number: 140163

Case Name: Deschutes County Road Department / United States
Forest Service

Case Closed ☒



Overview

Investigator

Brent Nicolas

Case Reviewer

Sunny Jones

-001

Date Started 11/05/2013

Date Completed 02/24/2014

ROL Provided? ☐ Yes ☒ No

List Test(s) Requested
Aminocyclopyrachlor,
Chlorsulfuron, Sulfometuron-
methyl

Number of Samples Taken 14

Number of Samples Analyzed 14

Number of Applicators

Complaint? ☒ Yes ☐ No

Sample Type
☐ Air ☒ Veg
☐ Animal ☐ Other
☒ Soil
☐ Swab
☐ Water

Complaint Form Provided? ☒ Yes ☐ No

PARC ☐ Yes ☒ No

Cease & Desist ☐ Yes ☒ No

Type of Investigation NUF

Verified Compliance? ☐ Yes ☐ No

Date Reviewed 02/25/2014

Related Cases

Date Case Completed 02/28/2014

Sixty Days 01/04/2014

One Hundred Twenty Days 03/05/2014

Tracking Devices	Liquid spray application
	Non-target species

Nature	

Parties Involved

<u>Parties Involved</u>	<u>Last / Business Name</u> <u>Address</u> <u>City</u> <u>Email</u>	<u>First</u> <u>State</u>	<u>Zip</u>	<u>License #</u> <u>Phone</u> <u>Phone 2</u>	<u>License Type</u> <u>Expiration Date</u> <u>County</u>	<u>Category</u>
Government agency	Deschutes County Road 61150 Southeast 27th Street Bend	OR			Deschutes	POC: Jon Valley
Applicator	Schultz 60957 Amethyst St Bend	Les OR	97702	Ag-L10025725PPA 541-322-7121	Deschutes	
Government agency/Compla inant	United States Forest Bend	OR	97701	541-480-6920	Deschutes	POC: Marlo Fisher
Applicator	VALLEY 1582 NW SAGINAW AVE BEND	JON OR	97701	AG-L0132224PPA 541-389-8311	PPA 12/31/2013 Deschutes	TOH, ROW

Application Information

Date of Application Start Time End Time Time of Day

Application Note

Category Applicator

Right of Way

Location of Application

Cottonwood Road west from its interchange with US Highway 97 to the Sunriver Resort boundary, Deschutes County, Oregon.
Paulina-East Lake Road from its intersection with US Highway 97 to its end.

Specific Site/Crop

Roadside right-of-way

Rate of Application (mixing rate, diluent, rate per area, etc)

Perspective 10 ounces per acre

Oust XP - 4 ounces per acre

Applied with 19 gallons water per acre

Purpose

Roadside vegetation control

Method of Application

Truck mounted boomless Norstar spray system.

Pesticides Involved

<u>Type</u>	<u>Manufacturer</u>	<u>Trade Name</u>	<u>EPA Reg. No.</u>	<u>Active Ingredients</u>
Herbicide	DuPont	Perspective	352-846	Aminocyclopyrachlor, Chlorsulfuron
Herbicide	DuPont	Oust XP	352-601	Metsulfuron methyl

November 4, 2013

Marlo Fisher, United States Forest Service (USFS) called the ODA office in Bend and spoke with the district pesticide investigator, **Brent Nicolas** (myself). She had a concern about trees located next to two roads in the **Deschutes National Forest** in Deschutes County, Oregon.

She said that trees along the Cottonwood Road roadside right of way were injured or damaged. She said that her office began to receive calls about the trees from the public about pines with browned needles. She was concerned that pesticide applications to the right of way may have impacted the trees.

She said she knew that the **Deschutes County Road Department** sprayed along the roadside. In addition, ODA Weed Program employees had made applications on the roadside as well. Those applications were strictly on portions of the road on USFS lands. I told her that I would be contacting the applicaors and conducting a site visit.

I also received a call from **Jon Valley**, supervisor of the Weed Management program for Deschutes County Road Department. He had spoken with Fisher and been out to the site. I made arrangements to met with him to visit Cottonwood Road the next day.

November 5, 2013

I traveled with Valley to Cottonwood Road. We viewed the road from where it intersected with US Highway 97 west to the boundary of the Sunriver Resort. Along both sides of the road I saw trees, ponderosa pines, that had browned needles. All the needles on some trees were brown. Some trees had a branch or two where the needles were brown. Other trees had some degree of browning throughout the tree, beyond the annual browning of the previous year's needles located next to the current year's needles. Other trees were entirely devoid of green needles.

Some of the trees had the candles (growing points) in the shape of a shepherd's crook. These were also brown. There was no consistency in the location of the affected trees. Some where tens of feet away from the right of way. Others were adjacent to it.

Affected trees were seen growing next to what appeared to be healthy trees. I observed a healthy seedling ponderosa approximately 15 inches in height growing between an affected tree and the road. Bitterbrush (*Purshia tridentata*), the most common woody plant, was growing along the bottom edge of the road shoulder.

A line of dead bitterbrush was visible paralleling the road. This was a visual indicator of the outside distance of the application. Past this the bitterbrush was alive. The road itself was asphalt and sat several feet above the surrounding forest. The roadside beyond the edge of the asphalt was primarily red volcanic gravel. Little, if any, vegetation was observed growing in the shoulder. The exception was the area where Cottonwood Road traveled over the railroad tracks that bordered the east side of the Sunriver resort.

November 6, 2013

Narrative

I returned to Cottonwood Road. Documentary photos of the trees were taken. A sampling plan was devised and physical samples were taken.

Sampling Plan

The most recent application had occurred nearly a year earlier. There was no visual indication of drift as least as far as green versus browned vegetation was concerned.

Samples were selected to determine if the active ingredients in the two pesticides used, Perspective and Oust XP, were present. These were the products Valley had stated were used along the roads.

The ingredients to be sampled for were Aminocyclopyrachlor, Chlorsulfuron, and Metsulfuron methyl.

I selected trees in various staging of browning. An apparently healthy ponderosa growing over a hundred feet from the roadside was selected. Vegetation from this tree and soil next to the tree were taken. None of the trees around this one nor the ground vegetation appeared to be affected.

A similar appearing tree adjacent to the right of way was selected. Soil in the application area between the asphalt and the sampled tree was taken. This was repeated for a tree that was nearly half browned and for a tree that appeared to be dead. All samples were sent to the ODA laboratory for analysis.

November 7, 2013

I went to the East-Lake-Paulina Lake Road. That road is located several miles north of La Pine, Oregon. It intersects with Highway 97 and travels eastward to the Newberry Crater Monument. The road from Highway 97 to the Monument entrance was open.

I observed Ponderosa trees in a similar condition as along Cottonwood Road. The number of trees was similar though spread out along a greater distance. Again there was no consistency in regards to which trees were affected. Documentary photos were taken here as well.

Physical samples were taken as per Cottonwood Road. I omitted a tree sample from one that appeared to be half way damaged. Trees in the green or fully browned condition were sampled as was soil next to the trees in the affected area. A green tree away from the road and soil next to it were also sampled.

Application Record Review

ON November 8, 2014, Valley supplied me

with the application record history for the previous two years for the area. The record showed the use of Perspective and Oust XP herbicides. The products were applied through a truck mounted sprayer with computer monitored boomless nozzles. The computer tracked the speed of the truck, the distance from the road the product was applied, the rates of application, and when as well as where the sprayer was turned on and off.

Label Review

Perspective herbicide is labeled for use on roadside right of ways. The 10 ounce per acre application rate was allowable per the label directions.

The Persepective pesticide product specimen label stated in part:

" Do not apply this product in areas where the roots of desirable trees and/or shrubs may extend unless injury or loss can be tolerated. Root zone areas of desirable trees or vegetation are affected by local conditions and can extend well beyond the tree canopy."

"Do not apply this product if site-specific characteristics and conditions exist that could contribute to movement and unintended root zone exposure to desirable trees or vegetation unless injury or loss can be tolerated."

"Certain species may, in particular, be sensitive to low levels of PERSPECTIVE® including but not limited to, conifers (such as Douglas fir, Norway spruce, ponderosa pine and white pine), deciduous trees (such as aspen, Chinese tallow, cottonwood,..."

"Injury or loss of desirable trees or vegetation may result if PERSPECTIVE® is applied on or near desirable trees or vegetation, on areas where their roots extend, or in locations where the treated soil may be washed or moved into contact with their roots. Consider site-specific characteristics and conditions that could contribute to unintended root zone exposure to desirable trees or vegetation. Root zone areas of desirable trees or vegetation are affected by local conditions and can extend beyond the tree canopy."

"Injury to or loss of desirable trees or vegetation may result if equipment is drained or flushed on or near these trees or vegetation, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots. "

"Ground Water Advisory

Aminocyclopyrachlor has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow."

The Oust XP was labeled for use along right roadside right of ways. The 4 ounce per acre rate was allowable per the label directions.

License Review

Both **Les Schultz** and Jon Valley were appropriately licensed at the times of their respective applications. Both are licensed public pesticide applicators with the right of way license categories.

Sample Results

Results of the samples taken from the Cottonwood Road area were received by me on February 3, 2014. Results are as follows:

Narrative

Positive results in bold italics

Sample	Analysis Requested	Results	Minimum Detection Limit
AUF140163-1	Aminocyclopyrachlor	<0.042 ppm	0.01 ppm
	Chlorsulfuron	<0.01 ppm	0.01 ppm
	Sulfometuron-methyl	<0.01 ppm	0.01 ppm
AUF140163-2	Aminocyclopyrachlor	<0.01 ppm	0.01 ppm
	Chlorsulfuron	<0.01 ppm	0.01 ppm
	Sulfometuron-methyl	<0.01 ppm	0.01 ppm
AUF140163-3	Aminocyclopyrachlor	0.042 ppm	0.01 ppm
	Chlorsulfuron	<0.01 ppm	0.01 ppm
	Sulfometuron-methyl	<0.01 ppm	0.01 ppm
AUF140163-4	Aminocyclopyrachlor	<0.01 ppm	0.01 ppm
	Chlorsulfuron	<0.01 ppm	0.01 ppm
	Sulfometuron-methyl	<0.01 ppm	0.01 ppm
AUF140163-5	Aminocyclopyrachlor	0.10 ppm	0.01 ppm
	Chlorsulfuron	<0.01 ppm	0.01 ppm
	Sulfometuron-methyl	<0.01 ppm	0.01 ppm
AUF140163-6	Aminocyclopyrachlor	<0.01 ppm	0.01 ppm
	Chlorsulfuron	<0.01 ppm	0.01 ppm
	Sulfometuron-methyl	<0.01 ppm	0.01 ppm
AUF140163-7	Aminocyclopyrachlor	0.10 ppm	0.01 ppm
	Chlorsulfuron	<0.01 ppm	0.01 ppm
	Sulfometuron-methyl	<0.01 ppm	0.01 ppm
AUF140163-8	Aminocyclopyrachlor	<0.01 ppm	0.01 ppm
	Chlorsulfuron	<0.01 ppm	0.01 ppm
	Sulfometuron-methyl	<0.01 ppm	0.01 ppm
AUF140163-9	Aminocyclopyrachlor	ppm	0.01 ppm
	Chlorsulfuron	ppm	0.01 ppm
	Sulfometuron-methyl	ppm	0.01 ppm
AUF140163-10	Aminocyclopyrachlor	ppm	0.01 ppm
	Chlorsulfuron	ppm	0.01 ppm

Narrative			
	Sulfometuron-methyl	ppm	0.01 ppm
AUF140163-11	Aminocyclopyrachlor	ppm	0.01 ppm
	Chlorsulfuron	ppm	0.01 ppm
	Sulfometuron-methyl	ppm	0.01 ppm
AUF140163-12	Aminocyclopyrachlor	ppm	0.01 ppm
	Chlorsulfuron	ppm	0.01 ppm
	Sulfometuron-methyl	ppm	0.01 ppm
AUF140163-13	Aminocyclopyrachlor	ppm	0.01 ppm
	Chlorsulfuron	ppm	0.01 ppm
	Sulfometuron-methyl	ppm	0.01 ppm
AUF140163-14	Aminocyclopyrachlor	ppm	0.01 ppm
	Chlorsulfuron	ppm	0.01 ppm
	Sulfometuron-methyl	ppm	0.01 ppm

Several of the samples from the Cottonwood Road area were positive for the presence of aminocyclopyrachlor. These samples were of ponderosa pine foliage that had some degree of browning in the needles. The sample of foliage from a tree well off the roadside had no aminocyclopyrachlor residue.

None of the soil samples were positive for presence of aminocyclopyrachlor even though they were taken from the roadside application site. Theoretically this ingredient should have shown in the soil samples as that where it was applied. The substrate was largely volcanic gravel with pumice soil underneath. Those substrates are known to be porous. This ingredient could have moved through the soil to a depth greater than the 6-8 inches from where the soil was sampled.

February 11, 2014

I spoke with Valley again. We discussed the applications to Cottonwood Road. Valley noted that of the many places they used Perspective, only two showed any issues in regards to affected Ponderosas. Application methods were the same in all places. Valley said the only appreciable difference from the Cottonwood Road site and the others was that in 2011, all sites sprayed with Perspective were done at the maximum label rate. In 2012 the Cottonwood Road site was sprayed at the maximum rate, the other sites were done at half the rate.

It may be that the additional residue from the first application with the residue from the second application was enough to impact the Ponderosa trees whereas the other sites that received less aminocyclopyrachlor did not. This is speculation by myself as the investigator and cannot be substantiated.

Narrative

Valley states that his agency would not be applying aminocyclopyrachlor pesticides in areas where large numbers of ponderosa trees are found. He said that his applicators would be given the authority to not apply that product where they were not comfortable.

Conclusion

The Oregon Department of Agriculture investigated a concern regarding concern raised by United States Forest Service Deschutes National Forest staff regarding a roadside right of way applications the the Deschutes County Road Department along Cottonwood and Paulina-East Roads in south Deschutes County, Oregon.

Ponderosa trees near Cottonwood Road and Paulina-East Lake Road exhibited various degrees of browned/dead needles. The trees were located along the roads. Some were on Forest Service land while the rest were within the county right of way. Samples of foliage of what appeared to be affected trees were positive for the presence of aminocyclopyrachlor, an ingredient found in one of the pesticides used by Deschutes County.

The application appeared to have been made appropriately based on the visual signs of the application in the way of a uniform spray pattern denoted by dead understory vegetation as well as application records generated by the onboard computer in the county's spray truck. There did not appear to be an application of the pesticides beyond the right of way.

The incorporation of the aminocyclopyrachlor into the affected trees off the right of way may have been through roots growing from the trees towards the road.

Future occurrences from applications by Deschutes County Road Department involving ponderosa trees and aminocyclopyrachlor are not expected as the county intends on avoiding the use of such products near those trees.

The Department is unable to substantiate that a violation of the Oregon Pesticide Control Act has occurred.

Attachments

Attachment Name

Type

Application Records

Records

Map of Area

Maps

Map of Sample Location and Results

Maps

Photos and Photo Log

Photos

Product Labels (ODA Copies)

Label

Sample Results and Forms

Forms

Enforcement Summary

<u>Name</u>	<u>License Type</u>	<u>Prohibition Violated</u>	<u>Number of Actions</u>	<u>Action</u>	<u>CP Paid?</u>	<u>Notice Issued</u>	<u>Notice Served</u>	<u>Orig CP Amount \$</u>	<u>Hearing Regsted</u>	<u>Informal Held</u>	<u>Final Order Date</u>	<u>Actual CP Amount \$</u>
Deschutes County Road Department	NONE	NONE	1	NONE								
TOTAL Orig CP Amount \$								TOTAL Actual CP Amount \$				



Oregon

John Kitzhaber, Governor

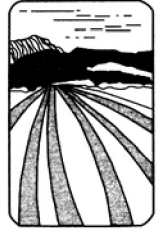
Department of Agriculture

635 Capitol Street NE
Salem, OR 97301-2532

Case Number: 150404

Case Name: HWY 20 / USFS, ODOT

Case Closed ☐



Duplicate of I031000-001

Overview

Investigator

Brent Nicolas

Case Reviewer

Andrea Sonnen

-002

Date Started 04/28/2015

Date Completed 08/28/2015

ROL Provided? ☐ Yes ☒ No

List Test(s) Requested Aminocyclopyrachlor,
Sulfometuron-methyl

Number of Samples Taken 8

Number of Samples Analyzed 8

Number of Applicators 2

Complaint? ☒ Yes ☐ No

Sample Type
☐ Air ☒ Veg
☐ Animal ☐ Other
☒ Soil
☐ Swab
☐ Water

Complaint Form Provided? ☒ Yes ☐ No

PARC ☒ Yes ☐ No

Cease & Desist ☐ Yes ☒ No

Type of Investigation NUF

Verified Compliance? ☐ Yes ☐ No

Date Reviewed 08/31/2015

Related Cases

Date Case Completed 09/01/2015

Sixty Days 06/27/2015

One Hundred Twenty Days 08/26/2015

Tracking Devices Liquid spray application

Nature

Parties Involved

<u>Parties Involved</u>	<u>Last / Business Name</u> <u>Address</u> <u>City</u> <u>Email</u>	<u>First</u> <u>State</u>	<u>Zip</u>	<u>License #</u> <u>Phone</u> <u>Phone 2</u>	<u>License Type</u> <u>Expiration Date</u> <u>County</u>	<u>Category</u>
Government agency	UNITED STATES FOREST 3160 NE 3RD STREET PRINEVILLE	OR	97754		Crook POC: Sarah Callaghan, Invasive Plant Program	
Applicator	SHOCKNEY PO BOX 2072 PRINEVILLE	TODD OR	 97754	AG-L1031218PPA 541-475-4459	PPA 12/31/2015 Crook	ROW
Government agency	JEFFERSON COUNTY 715 SE GRIZZLY ROAD MADRAS	OR	97741		Jefferson POC: Todd Shockney	
Government agency	DESCHUTES COUNTY 61150 SOUTHEAST 27TH STREET BEND	OR	97702		Deschutes POC: Jon Valley, Manager	
Government agency	OREGON DEPARTMENT 800 Airport Rd SE SALEM	OR	97301		Marion POC: Will Lackey, Statewide Integrated Vegetation	
Applicator	PAYE PO BOX 783 MADRAS	FLOYD OR	 97741	AG-L0149250PPA 541-475-3278	PPA 12/31/2015 Jefferson AgH, TOH, Reg. W, ROW	
Government agency	Oregon Department of 635 Capitol Street NE Salem	OR	97301	503-986-4621	Marion POC: Mike Crumrine, ODA Central Oregon Integrated	

Application Information

Date of Application Start Time End Time Time of Day

Application Note

Category Applicator

Right of Way

Location of Application

Specific Site/Crop

Rate of Application (mixing rate, diluent, rate per area, etc)

Purpose

Method of Application

Pesticides Involved

<u>Type</u>	<u>Manufacturer</u>	<u>Trade Name</u>	<u>EPA Reg. No.</u>	<u>Active Ingredients</u>
Herbicide	DuPont	Perspective	352-846	Aminocyclopyrachlor, Chlorsulfuron
Herbicide	DuPont	Oust XP	352-601	Metsulfuron methyl
Herbicide	Monsanto	Honcho Plus	524-454	Glyphosate
Herbicide	Bayer	Esplanade 200 SC	432-1516	Indaziflam

December 2014-February 2015

A number of Ponderosa pine trees along both the north and south sides of **Highway 20** west of **Sisters** were observed to be in a state of decline. The trees had needles that were browned/dead instead of the dark green color normally seen on them. This condition varied from tree to tree. Some trees were completely browned throughout, some at the upper portions only, while others with one side browned in this manner.

This was noted in November 2014 by the district pesticide investigator **Brent Nicolas** (myself). In December I initially called and spoke with **Jon Valley, Roadside Vegetation Manager** for **Deschutes County**. The county has made numerous roadside pesticide applications to various roads and highways within Deschutes County. The affected trees were near/in the western border of the county on Highway 20.

Valley said they had made applications in the area but not necessarily where the affected trees were. He and I went out to the area in December. We drove along Highway 20 and observed those trees and he pointed out where his employees had made their applications. Those applications were to **United States Forest Service (USFS)** lands that were located on both sides of the highway.

March 2, 2015

I had not received any complaints regarding this application until this date. I received an email from **Sarah Callaghan, Invasive Plant Program Manager for the Deschutes and Ochoco National Forests and the Crooked River National Grasslands**. The email is as follows:

"Hi Brent,

I am the invasive plant program manager for the Deschutes and Ochoco National Forests. Last week, Jon Valle mentioned you had investigated some tree damage along hwy 20 outside of Sisters. Myself, Mike Crumrine and the district botanist also went out to look at the trees. Can you please give me more information about this? We really want to make sure we are in the loop and communicating with you.

Thanks,
Sarah"

March 18, 2015

I met and spoke with Callaghan. I presented my state credentials to her. She said that several of her staff and members of the public had commented to her office about the trees along Highway 20. She had also been in contact with **Mike Crumrine, ODA Central Oregon Integrated Weed Management Coordinator**.

She and I discussed the various applications of pesticides along the highway roadsides.

Narrative

We discussed the possibility of a biotic source such as diseases or insects as being a possible source. She mentioned that she had been in contact with **Will Lackey, Oregon Department of Transportation (ODOT) Statewide Integrated Vegetation Management Coordinator**.

I spoke with Lackey several times in person and over the phone. He said that ODOT had hired Jefferson County Road Department to make roadside applications in that area and would know what products had been used along the roadside.

April 28, 2015

I drove out to the area of Highway 20 where the affected trees were located. The trees appeared as they had in the winter. While the trees that were affected were located along the highway there was no consistency in the which trees were in that condition. Some of the trees on the edge of the the right of way were affected while others this distance appeared to be healthy. In other places the affected trees were further back from the right of way while trees near them that were closer to the road.

Sample Plan

After surveying the area I selected several places in which to take samples. I took vegetative and soils samples from an area over a hundred feet away from the highway where the trees appeared to be healthy, the same sample media were taken from healthy and affected trees adjacent to the right of way. Soil samples were taken within the right of way by the sampled healthy and affected trees. The purpose of the samples was to see if the herbicide used was present in the soil around the trees or in the vegetation. Documentary photos were taken as well.

In my conversation with Lackey he had said that Jefferson County had applied DuPont Perspective, a herbicide containing the active ingredient aminocyclopyrachlor. This ingredient is known to be harmful to Ponderosa pines. Additionally a product called DuPont Oust XP was used in the tank mix. Its ingredient, sulfometuron-methyl, was also analyzed for.

The samples were sent to the ODA Laboratory for analysis.

May 5, 2015

I called and spoke with **Todd Schockney**, Jefferson County Weed Control, He confirmed that the county had applied herbicides along the Highway 20 road shoulders west of Black Butte Ranch. He was aware of the trees and had been in contact with ODOT about it.

I requested the application records for the work done along Highway 20. They were faxed to me that day.

Record Review

Narrative

There were two applications of record for those areas. One from April 9, 2014 and one from March 6, 2015. Each application consisted of the same pesticide products. Those products were DuPont Perspective, Monsanto Honcho Plus, DuPont Oust XP, and Bayer Esplanade 200 SC. Both applications used the same method (Norstar spray system with boomless nozzles). With the exception of an increase in the amount of Honcho (2015), use rates were the same over both applications. The 2014 application was made over 20 acres and in 2015 it was 17 acres.

The applicator in 2014 was **Floyd Paye**. The applicator in 2015 was Todd Shockney.

Label Review

A review of the product labels for the pesticides used found the site, rates, and method of application to be appropriate for the directions.

The Perspective label stated in part:

- Do not apply this product in areas where the roots of desirable trees and/or shrubs may extend unless injury or loss can be tolerated. Root zone areas of desirable trees or vegetation are affected by local conditions and can extend well beyond the tree canopy.
- Certain species may, in particular, be sensitive to low levels of DuPont™ PERSPECTIVE® including but not limited to, conifers (such as Douglas fir, Norway spruce, ponderosa pine and white pine), deciduous trees (such as aspen, Chinese tallow, cottonwood, honey locust, magnolia, poplar species, redbud, silver maple, and willow species), and ornamental shrubs (such as arborvitae, burning bush, crape myrtle, forsythia, hydrangea, ice plant, magnolia, purple plum and yew).
- Injury or loss of desirable trees or vegetation may result if PERSPECTIVE® is applied on or near desirable trees or vegetation, on areas where their roots extend, or in locations where the treated soil may be washed or moved into contact with their roots. Consider site-specific characteristics and conditions that could contribute to unintended root zone exposure to desirable trees or vegetation. Root zone areas of desirable trees or vegetation are affected by local conditions and can extend beyond the tree canopy. If further information is needed regarding root zone area, consult appropriate state extension service, professional consultant or other qualified authority.

License Review

Both applications required a public pesticide applicators license. Both applicators were licensed as public pesticide applicators at the times of the applications.

Sample Results

I received the results of the samples on August 12, 2015. The results are as follows:

Sample Results

Sample	Analysis Requested	Results	MRL
NUF150404-1	Aminocyclopyrachlor	<0.010 ppm	0.010 ppm

Narrative			
	Sulfometuron-methyl	<0.010 ppm	0.010 ppm
NUF150404-2	Aminocyclopyrachlor	<0.010 ppm	0.010 ppm
	Sulfometuron-methyl	<0.010 ppm	0.010 ppm
NUF150404-3	Aminocyclopyrachlor	<0.010 ppm	0.010 ppm
	Sulfometuron-methyl	<0.010 ppm	0.010 ppm
NUF150404-4	Aminocyclopyrachlor	<0.010 ppm	0.010 ppm
	Sulfometuron-methyl	<0.010 ppm	0.010 ppm
NUF150404-5	Aminocyclopyrachlor	<0.010 ppm	0.010 ppm
	Sulfometuron-methyl	<0.010 ppm	0.010 ppm
NUF150404-6	Aminocyclopyrachlor	<0.043 ppm	0.010 ppm
	Sulfometuron-methyl	<0.010 ppm	0.010 ppm
NUF150404-7	Aminocyclopyrachlor	<0.010 ppm	0.010 ppm
	Sulfometuron-methyl	<0.010 ppm	0.010 ppm
NUF150404-8	Aminocyclopyrachlor	<0.010 ppm	0.010 ppm
	Sulfometuron-methyl	<0.010 ppm	0.010 ppm

ppm = parts per million MRL - Minimum Residue Level

positive sample results in bold

All but one of the samples were negative for the presence of either aminocyclopyrachlor or sulfometuron-methyl. A sample of pine needles taken from a tree that was mostly browned out did have a aminocyclopyrachlor residue of 0.043 ppm, which was above the 0.010 ppm MRL.

Investigator Recommendations

The Department of Agriculture has investigated a concern raised by the USFS regarding trees along Highway 20 west of the town of Sisters. USFS was concerned about the decline of a number of Ponderosa pines along the highway. From its review of the available information, the Department has not substantiated a violation of the Oregon Pesticide Control Act has occurred.

A review of the pesticide applications made to the roadside right-of-way found that the applications appeared to have been made in accordance with pesticide use rules. State pesticide licensing requirements were also met in the applications.

Narrative

Sampling of Ponderosa pine needles from an affected tree found the presence of aminocyclopyrachlor, one of the ingredients found in the herbicide Perspective. The ingredient is known to adversely affect Ponderosa pines. While it appears that the pesticide applications were made appropriately the ingredient has found its way into the tree.

As a result, USFS has requested a multi-agency meeting to discuss future pesticide use on its lands, especially where they abut roads.

Conclusion

The Department of Agriculture has investigated a concern raised by the USFS regarding trees along Highway 20 west of the town of Sisters. USFS was concerned about the decline of a number of Ponderosa pines along the highway. From its review of the available information, the Department has not substantiated a violation of the Oregon Pesticide Control Act has occurred.

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Attachments

Attachment Name

Type

Emails	Correspondence
Maps	Maps
Pesticide Application Records	Records
Pesticide Product Labels	Label
Photos and photo log	Photos
Sample Results	Correspondence
USFS Forest Health Report	Misc.

Enforcement Summary

<u>Name</u>	<u>License Type</u>	<u>Prohibition Violated</u>	<u>Number of Actions</u>	<u>Action</u>	<u>CP Paid?</u>	<u>Notice Issued</u>	<u>Notice Served</u>	<u>Orig CP Amount \$</u>	<u>Hearing Regsted</u>	<u>Informal Held</u>	<u>Final Order Date</u>	<u>Actual CP Amount \$</u>
Oregon Department of Transportation	NONE	NONE	1	NONE								
TOTAL Orig CP Amount \$								TOTAL Actual CP Amount \$				